

REMARKS

Claims 1-17 remain in this application. Claims 1 and 8 have been amended. The amended claims are supported by the specification and new matter has been added. No claims have been added or cancelled. The Applicants respectfully request reconsideration of this application in view of the above amendments and the following remarks.

35 U.S.C. §103(a) Rejection – Admitted Prior Art In View of Klebanoff and Miyaji

The Examiner has rejected claims 1-17 under 35 U.S.C. §103(a) as being unpatentable over Applicant's Admitted Prior Art in Patent Application Figure 1 (hereinafter referred to as "AAPA") in view of U.S. Patent No. 5,559,584 issued to Miyaji et al. (hereinafter referred to as "Miyaji") apparently also in view of U.S. Patent No. 6,153,044 issued to Klebanoff et al. (hereinafter referred to as "Klebanoff"). The rejection stated that it would have been obvious to a skilled artisan to employ "a vent" as taught by Klebanoff to the enclosure of AAPA and to add the inert gas to the enclosure and remove the air from the enclosure as suggested by Miyaji for the purpose of keeping the mask from being contaminated and increasing the transmittance of light and whereby improving the quality of the images to be printed.

The Applicants respectfully contend that the present Office Action fails to establish a prima facie case of obviousness for at least the reasons that: (a) the references should not be combined, and (b) even if the references are combined in the manner proposed they do not teach or suggest all claim limitations. Accordingly, the Applicants request reconsideration of the rejection.

Firstly, the references should not be combined. The conclusion that it would be obvious to employ Klebanoff's gas inlet means 130 and aperture 135 in the prior art pellicle-

reticle system shown in Application Figure 1 is clearly based on improper hindsight reasoning. There is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, that the references be combined, or that they be combined in the manner suggested. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

That the references should not be combined is further supported by the fact that it would be necessary to make modifications not taught or suggested in the prior art in order to employ Klebanoff's in the prior art pellicle-reticle system of Application Figure 1. In Klebanoff (1) a mounting means 126 is used to mount the reticle 120, (2) such that its surface 125 to be protected from particle deposition is oriented in a downwardly facing direction to eliminate particle deposition by gravitational settling, and (3) such that the mounting means directs the gas flow around the reticle 120 away from the surface 125 of the reticle 120. Klebanoff does not teach alternate designs and should be construed narrowly. There is no disclosure in the cited art how either of (1) the mounting means 126, (2) the downwardly facing surface 125 of the reticle, or (3) the gas flow around the reticle may be employed in the prior art pellicle-reticle system shown in Figure 1. The Applicants contend that those skilled in the art would not find it desirable to use Klebanoff's gas inlet means 130 and aperture 135 in Application Figure 1 where the flow is not directed away from the surface 125 of the reticle 120. For these and other reasons those skilled in the art would find it difficult, if not physically impossible, to combine the references in the manner suggested. Further, there was absolutely no teaching or suggestion that such modifications, even if possible, would be desirable or would have a

reasonable expectation of success (see In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984)). Therefore, it is simply improper to add Klebanoff's gas inlet means 130 and aperture 135 to the prior art pellicle-reticle system of Application Figure 1.

Secondly, even if combined, which does not seem appropriate, the references still do not teach or suggest all claim limitations. Amended claim 1 recites an apparatus comprising at least "*a wall to connect the mask protective device with the patterned mask, the mask protective device, the patterned mask, and the wall defining a gas-filled enclosure; and a vent defined by the wall to add a first gas to the enclosure and to remove a second gas from the enclosure*". The combination does not teach or suggest **a vent defined by a wall connecting a mask protective device with a patterned mask**. The Applicants note that Klebanoff's gas inlet means 130 and aperture 135 are formed in the pellicle walls 110 whereas claim 1 particularly recites that the vent is defined by the connecting wall and not the pellicle.

Accordingly, for at least these reasons claim 1 is believed to be allowable. Claims 2-14 depend upon claim 1 and are believed to be allowable therefor as well as for the recitations independently set forth therein.

Claim 15 is believed to be allowable for similar reasons. Claims 16-17 depend upon claim 15 and are believed to be allowable therefor as well as for the recitations independently set forth therein.

35 U.S.C. §103(a) Rejection – Sego in view of Miyaji

The Examiner has rejected claims 1-17 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,422,704 issued to Sego (hereinafter referred to as "Sego") in view of U.S. Patent No. 5,559,584 issued to Miyaji et al. (hereinafter referred to as "Miyaji"). In particular the Examiner appears to interpret Segc's pressure equalization conduits 261-

264 as a vent and concludes that it would have been obvious to a skilled artisan to replace the gas/air inside Sego's enclosure with the inert gas as suggested by Miyaji.

Without admitting the appropriateness of the combination of Sego with Miyaji, the Applicants respectfully disagree with this rejection for at least the reason that Sego's pressure equalization conduits 261-264 do not constitute a vent. Amended claim 1 recites an apparatus comprising at least "*a vent defined by the wall to add a first gas to the enclosure and to remove a second gas from the enclosure*". The Examiner appears to be interpreting Sego's pressure equalization conduits 261-264 as a vent. This is inappropriate inasmuch as these pressure equalization conduits are designed for pressure equalization and are insufficient as a vent for changing the composition within the enclosure. As understood by the Applicants when using the pressure equalization conduits 261-264 adding gas to the enclosure and removing gas from the enclosure must be performed individually. Concurrent addition and removal is not achievable. It seems the only way to replace the air inside of the enclosure with an inert, as allegedly suggested in Miyaji, would be to apply a complete vacuum to remove all air from the enclosure through the pressure equalization conduits and then re-pressurize the system in an inert to add the inert through the conduits until the enclosure is filled. However this does not even seem possible given the insufficient strength of Sego's pellicle membrane 230. Accordingly, the applicants contend that the pressure equalization conduits 261-264 do not constitute a vent to add a first gas to the enclosure and remove a second gas from the enclosure and cannot be used to replace the gas/air inside Sego's enclosure with the inert gas as allegedly suggested by Miyaji.

Accordingly, for at least these reasons claim 1 is believed to be allowable. Claims 2-14 depend upon claim 1 and are believed to be allowable therefor as well as for the recitations independently set forth therein.

Claim 15 is believed to be allowable for similar reasons. Claims 16-17 depend upon claim 15 and are believed to be allowable therefor as well as for the recitations independently set forth therein.

The Dependent Claims Are Even More Distinguishable Over Cited Art

Claim 13 recites, "the inlet opening includes a plurality of discrete ports". The cited art does not teach or suggest that the inlet opening include a plurality of discrete ports. Accordingly, claim 13 is believed to be allowable.

Conclusion

Applicants respectfully submit that the rejections have been overcome by the amendment and remark, and that the claims as amended are now in condition for allowance. Accordingly, Applicants respectfully request the rejections be withdrawn and the claims as amended be allowed. The Examiner is requested to call Brent E. Vecchia at (303) 740-1980 if there remains any issue with allowance of the case.

Request For An Extension Of Time

The Applicants respectfully petition for a one-month extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a). A check in the amount of \$110.00 is enclosed for this purpose.

Charge Our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In The Claims:

1. (Amended) An apparatus comprising:

a mask protective device including a transparent portion that is transparent to a photolithography radiation;

a patterned mask including a pattern defined at least in part by an opaque portion that is opaque to the photolithography radiation;

a wall to connect the mask protective device with the patterned mask, the mask protective device, the patterned mask, and the wall defining a gas-filled enclosure;
and

a vent defined by the wall to add a first gas to the enclosure and to remove a second gas from the enclosure, the first gas having a different gas phase composition than the second gas.

Claims 2 – 7 remain unchanged

8. (Amended) The apparatus of claim 1, wherein the first gas [that] has a higher transmissivity for the photolithography radiation than the second gas.

Claims 9 – 17 remain unchanged